Draft Notes: Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 5/24/11 at 9:00 a.m.

Objective: Provide advice to the Water Operations Management Team (WOMT) and National Marine Fisheries Service (NMFS) on measures to reduce adverse effects from Delta operations of the Central Valley Project and the State Water Project on salmonids and green sturgeon. DOSS will coordinate the work of other technical teams. DOSS notes and advice can be found at: http://swr.nmfs.noaa.gov/ocap/htm

DWR: Andy Chu, Mike Ford, Angela Llaban, Cynthia LeDoux-Bloom
FWS: Roger Guinee
NMFS: Barbara Rocco, Bruce Oppenheim, Barb Byrne, Jeff Stuart, Garwin Yip
DFG: Dan Kratville, Robert Vincik
Reclamation: Thuy Washburn
EPA, **SWRCB:** not present

Action Items

1) **NMFS (Oppenheim)** drafted real-time-monitoring data needs and submitted it to DOSS group for review.

An Excel spreadsheet on data needs was presented to the group on 5/24/11. The spreadsheet was based on the fish triggers in the NMFS BiOp to help determine what the data needs are for next year starting from upstream data needs (carcass surveys) to the Delta (loss densities). Not included was DNA data in real-time; however, there is a requirement to have an annual report on the DNA analysis.

It was noted that for Delta Cross Channel operations, the Sacramento and Delta beach seine data are reviewed. On steelhead salvage reporting, there are no "loss" data for steelhead, just salvage. Add "as appropriately estimated" for steelhead loss data because we don't have exact expansions for all species. It was also suggested that we add frequency to the time period (including daily frequency) and to refer to sections of the BiOp instead of to RPA actions.

Consider adding whether timing should include weekends, holidays, or furlough days. In addition, add that DOSS would like cumulative data to wrap up for the end-of-year information, for example, cumulative coded-wire-tag (CWT) data for the end-of-year report. There was a question about whether it would be difficult to add these data needs (extra work) if not already in the contracts between/among the agencies and whether contracts between the agencies are for all monitoring or just focused on the export facilities. It was decided to go ahead with documented the data needs and not worry about the contracting issues.

It was also suggested that DOSS needs to identify what it requires to manage real-time data on a day-to-day basis. Some is new reporting that the agencies are not accustomed to doing right now, such as fish-density data. Data are collected in terms of actual catch but not density. The group decided to continue to review the document and provide comments by 5/31/11, after which time the document will be finalized and sent out.

Agenda

1) Fish monitoring data
2) Project operations
3) Review of data-needs document (attached)
4) Comments on 4:1 implementation

Fish Monitoring: The following table presents the fish monitoring data from 5/16 to 5/23/11. For additional info: http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm

Location	Chipps Is. Midwater Trawl	Sacramento Kodiak Trawl	Mossdale Kodiak Trawl	Beach Seines	Knights Landing RST	Tisdale Weir RST	Moulton Weir RST	Deer/Mill Creeks RST
Sample Date	5/16, 18, 20	5/17, 19	5/16–5/22	5/16–5/20	5/18, 20, 21, 22	5/19–5/23	N/A	N/A
Total Catch	**342**	**43**	**523**	**5094**	**42**	**57**		
FR	275	36		33	40	56		
LFR				1				
WR								
SR	10		428					
(Ad-clips)	57	7	95	3	2	1		
DS				5				
LFS								
SPTL				5052				
SH (ad-clip)								
SH (natural)								
Water Temp. (avg. °F)	60.4	56.2	N/A	59.2	61.8	59.2		
Flows (avg. cfs)					12,275	13080		
Turbidity (avg. NTU)					27.6	17.0		
FR/SR Avg. CPUE					4.25	5.59		
WR/LFR Avg. CPUE								

Key: FR = Fall run; LFR = Late-fall run; SR = Spring run; WR = Winter run; SH = Steelhead; DS = Delta smelt; LFS = Longfin smelt; SPTL = Splittail.

Tisdale: Flows are down. Catch has been down over the last few weeks. All catches are fall- and spring-run size Chinook.

Beach Seines: 5 delta smelt were from Garcia Bend and were 61–76 mm (adults).

Mossdale: The non-hatchery salmon caught were in the 100-mm size range (i.e., spring run by length-at-date). The season total is 1,479 Chinook, which is more than last year at this time.

Knights Landing: Flows were down and then went back up. All Chinook were in the fall- and spring-run size category. Two were ad-clipped.

The CWT data were updated through the last few days of March from FWS (Stockton). Two winter-run hatchery fish were caught at Chipps Island on 3/28 and 3/21, and 1 was caught on 4/18. There are most likely some tag data since April that have not yet been recorded. FWS have collected quite a few clipped fish (hatchery) over the past few weeks so, hopefully, they can process those and get the data to us. CWTs from the fish facilities are processed first (highest priority).

Salvage data (5/16 to 5/22/11):

Chinook (calculated from salvage using length-at-date categories)

Loss*	CVP	SWP
Winter-run	0	0
Spring-run	941	4394
Fall-run	439	2289
Late fall-run	0	0

*Non-clipped Chinook

SWP: The 4,394 spring-run lost, is a decrease from last week. Trend is reversing from mostly spring-run lost to mostly fall-run lost according to size. CVP: There were 20 hatchery fall-run, and 23 hatchery spring-run salvaged, none at the SWP.

The older juvenile Chinook lost density was 0 from 5/18 to 5/22/11.

YTD loss totals (since 10/1/10) for non-clipped: 5,077 fall run, 257 late-fall run, 43,714 spring run, 4,360 winter run

Steelhead salvage: CVP: 0 hatchery, 12 non-clipped; SWP: 12 hatchery, and 18 non-clipped

YTD totals: 535 non-clipped steelhead salvaged since 10/1/10.

There were no sturgeon, no delta smelt, no longfin, and no larval fish at either facility.

Splittail: Beginning 5/7/11, large numbers of splittail have been at the facilities, mainly at CVP; there are about 0.5 million/day at CVP and 10–20,000/day at SWP. Splittail numbers increase during high-flow years so the numbers fluctuate, which is why FWS took them off the endangered list. Splittail "like" the Yolo Bypass and flooded areas of the San Joaquin because of the high flows. DWR (Chu) noted difference in sampling methods at the CVP (weighing counts of splittail) vs SWP reduced sample time to 20 minutes, may account for large differences in estimating numbers.

Steelhead Loss Density

SWP & CVP WILD STEELHEAD LOSS & LOSS DENSITY
05/16/2011 through 05/22/2011

Date	WILD STEELHEAD LOSS* (# fish)			Combined wild steelhead loss density Loss Density (fish/TAF)
	SWP	CVP	Combined	
5/16/2011	25.98	0.00	25.98	3.30
5/17/2011	0.00	5.44	5.44	0.81
5/18/2011	34.64	0.00	34.64	5.02
5/19/2011	0.00	0.00	0.00	0.00
5/20/2011	17.32	0.00	17.32	4.08
5/21/2011	0.00	0.00	0.00	0.00
5/22/2011	0.00	2.72	2.72	0.64

DWR-DES 5/23/2011
Preliminary, subject to revision
*SWP loss = salvage * 4.33, CVP loss = salvage * 0.68

DOSS confirmed the steelhead density (5.02/TAF at the highest) is less than the trigger (8.0 fish/TAF required in the NMFS BiOp for Action IV.2.3) and determined that no advice is needed.

Coded Wire Tags: FWS has not yet received the latest data from the fish facilities (tags waiting to be picked up). The majority of tagged fish are in the fall- or spring-run size category.

Smelt working group (SWG) update: see website at: http://www.fws.gov/sfbaydelta/ocap/ There will be a meeting next Tuesday, 5/31/11, because the 4:1 San Joaquin inflow-to-combined exports stops on June 1 and we go back to OMR flow management. There is a concern that there is spawning going on in the Mokelumne River and that those fish may become vulnerable when OMR controls begin again and become negative. The concern was that 2 spent fish were recovered in the upper Mokelumne River system, west of Interstate 5. 20-mm survey: 5 delta smelt were observed from the upper Sacramento River. Longfin smelt are all out of Suisun Bay.

Operations (May 24, 2011)

SWP		CVP	
Flows/Exports (cfs)			
Clifton Court Forebay	1,500	Jones Pumping Plant	1,000
Outflow		American- Nimbus	7,000
Total Delta Inflow	52,939	Sacramento-Keswick	9,500
		Stanislaus - Goodwin	2,000 down to 1,500 by Friday
Feather - Oroville	4,000	Merced	
Sacramento River at Freeport	38,902	Mokelumne	
San Joaquin at Vernalis	9,960	Tuolumne	
OMR (daily)	3,252		

OMR 5 day	3,282		
OMR 14 day	2,761		
Reservoir Storage (TAF)			
San Luis	965	San Luis	924
		Shasta	4,472
Folsom	847		
New Melones	2,072		
Oroville	3,347		
Delta Operations			
DCC	Closed	X2 (km)	56
Outflow Index (cfs)	47,600		
Inflow diverted (%)	4.6	Vernalis I:E Ratio	4.0 (14-day avg.)
Water Temperature (°F)			

Vernalis: San Joaquin inflow-to-combined exports ratio is running at about 4.0; it was at 4.1 for a few days, but is back down to 4.0 now. Vernalis flows are predicted to increase slightly to 10,000 cfs because the Merced flows are going up, but Stanislaus flow is going down. Combined exports will remain at about 2,500 cfs until June 1st. CVP projected increasing exports to 4,200 cfs by June 2nd. Unknown what the SWP will do.

The DCC will not open over Memorial Day weekend because Freeport flows are so high (above 25,000 cfs, levee protection issue).

Procedures for I:E Implementation:
There was discussion about the document that the DOSS subgroup on I:E implementation had submitted to the DOSS group. Byrne is inputting comments from last week. She is pulling implementation procedures into a new document and will send it out to the group today in "track changes" mode. The new piece has to do with how many significant digits to use. There were three uses discussed: 1) internal tracking to the tenths place, 2) reporting, and 3) compliance using whole numbers. Data on flows are usually accurate to within 200–300 cfs. NMFS has the discretion to interpret the I:E ratio implementation procedures.

Action: Byrne will send out the document with suggested language about the compliance level of reporting (e.g., how many significant digits to use).

DOSS advice to WOMT and NMFS: Continue to implement the 4:1 ratio and OMR flows at no more negative than -5,000 cfs.

Next Week's Meeting: We will most likely not have any fish data because Monday is a holiday (Memorial Day).

Next Meeting: Conference call on Tuesday, 5/31/11; the time will be determined at the WOMT call later today.